



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/539,025	03/30/2000	Haruhiko Nakai	JP980137	7678

25259 7590 08/28/2003

IBM CORPORATION
3039 CORNWALLIS RD.
DEPT. T81 / B503, PO BOX 12195
RESEARCH TRIANGLE PARK, NC 27709

EXAMINER

SCHLAIFER, JONATHAN D

ART UNIT	PAPER NUMBER
----------	--------------

2178

DATE MAILED: 08/28/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/539,025

Applicant(s)

NAKAI ET AL.

Examin r

Jonathan D. Schlaifer

Art Unit

2178

-- The MAILING DATE f this c mmunication appears on the cover sheet with the corresp ndence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/30/2000, IDS 5/27/2003 .
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 . 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to application 09/539,025 filed on 3/30/2000, with prior art filed on 5/27/2003.
2. Claims 1-10 are pending in the case. Claim 1 is an independent claim.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in this application.

Specification

4. The disclosure is objected to because of the following informalities: On page 5, line 5, "font replacement by;" should read "font replacement by:" and on page 7, line 4, "Drawings" should be "Drawing". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, because Unicode is not a font, but rather a font encoding. Hence, it is necessary to replace "font is a font set of the Unicode font" with "font is a font with Unicode encoding".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hube et al. (USPN 5,167,013—filing date 9/28/1990), hereinafter Hube**
7. **Regarding independent claim 1**, Hube's invention comprises a method of standardizing character information in electronic documents, as shown in figure 9A of Hube's invention and in col. 2, lines 16-18. In lines 16-32, Hube describes how "a print controller searches a mapping of known fonts to available fonts", which would constitute comparing a font used in an electronic document to a font within a target replacement font set in order to automatically generate a font comparison table for use during actual font replacement. In col. 8, lines 64-68 and col. 9, lines 1-12, Hube describes how the user is notified if manual intervention is needed in the replacement process, and since it was notoriously well known at the time of the invention that when a user is notified that their intervention is necessary, it is customary to let them intervene, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the steps in the standardization process of presenting said font comparison table to a user and said user amending errors in said font comparison table. Finally, in col. 9, lines 10-12, Hube describes how the substitution is made, which constitutes actually replacing said font used in said electronic document based on said font comparison table as amended.
8. **Regarding dependent claim 8**, in col. 8, lines 64-68 and col. 9, lines 1-12, Hube describes how the user is notified if manual intervention is needed in the replacement process, and since it was notoriously well known at the time of the invention that a program may offer multiple choices to a user when more than one answer may be right, it

would have been obvious to one of ordinary skill in the art at the time of the invention to have the step of amending errors in said font comparison table further comprise the steps of displaying a candidate list for the font comparison table every entry, and said user selecting one character from said candidate list.

9. **Regarding dependent claim 9**, Hube, in col. 10, lines 31-32 refers to a programmable look up table mapping unknown fonts to known fonts. It was notoriously well known in the art at the time of the invention that one may use stylesheets to describe the structure of a source electronic document in order to aid in managing its formatting. Given these teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a method wherein a font comparison table and a rule set describing a structure of a source electronic document are input and standardization of fonts and character code used in said source electronic document are carried out in said step of replacing said font, because Hube's invention involves all of these features except for the rule set describing a structure of a source electronic document and such a rule set would be characteristic of a stylesheet, which would aid in managing the formatting of the document.

10. **Regarding dependent claim 10**, it was notoriously well known at the time of the invention that fonts with Unicode encoding are typically used to encode documents with a wide variety of characters. Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the font set to be provided as a replacement font be a font set of the Unicode encoding in order to encode documents with a wide variety of characters.

11. **Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hube, further in view of Patel et al. (USPN 6,426,751 B1—filing date 4/1/1999), hereinafter Patel**
12. **Regarding dependent claim 2**, Hube, in claim 6 in col. 10, lines 14-34, describes a method for controlling font substitution in an electronic document. It was notoriously well known in the art at the time of the invention that inputting an electronic source document is a necessary and customary step prior to its being processed. Furthermore, Hube describes storing a number of fonts in a font library, and it would have been obvious to one of ordinary skill in the art at the time of the invention to have this involve inputting a font set used in said electronic source document because this would give the user control over the fonts used. Hube also describes the use of a mapping, which constitutes a form of inputting a target standardization font set and inputting a comparison table made in a previous conversion. It was notoriously well known in the art at the time of the invention that a program may output internal data in order to clarify how it operates to the user, and hence it would have been obvious to one of ordinary skill in the art to include the step of outputting a font comparison table candidate list in order to clarify how it operates to the user. Hube fails to disclose inputting font object information to describe a rule set to limit objects of character comparison and a rule set related to mapping for each kanji radical. However, Patel discloses in col. 4, lines 52-58 the use of glyphName to glyphID mappings, and in col. 30, lines 43-49, that kanji is a language to which such mapping may apply. The motivation for such mappings is to define changes to a font. It would have been obvious to one of ordinary skill in the art at the time of the invention to

incorporate Patel's teachings about rules for kanji radicals into Hube's invention in order to define changes to a font.

13. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hube, further in view of Patel, further in view of "Item-Mapping Subsystem", IBM Technical Disclosure Bulletin, June 1993 (pages 553-556, pub. Date 6/1/1993), hereinafter IBMTDB

14. Regarding dependent claim 3, Hube and Patel fail to disclose a step of outputting weighting information regarding mapping between similar characters as a reference file. IBMTDB discloses that in performing a mapping, a variable weighting scheme may be used to avoid collisions in a hashing schemes typically used in mapping. It was notoriously well known in the art at the time of the invention that a program may output internal data in order to clarify how it operates to the user. Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of weighting of IBMTDB into Hube and Patel in order to avoid collisions in hashing schemes used in mappings. The result would be a step of outputting weighting information regarding mapping between similar characters as a reference file.

15. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hube, further in view of Patel, further in view of Ng et al. (USPN 6,360,223 B1—filing date 6/29/1998), hereinafter Ng

16. Regarding dependent claim 4, Hube and Patel fail to disclose a method wherein said font comparison table candidate list takes as elements groups of comprising one character within a source font and a plurality of characters within a target font compatible with said

source font. However, Ng discloses in col. 7, lines 14-31, the use of many-to-many relationships in mappings to accurately model situations where such a mapping is appropriate. Hence, it would have been obvious to one of ordinary skill in the art to follow Ng's teachings about many-to-many relationships in the context of Hube and Patel to have said font comparison table list take as elements groups comprising one character within a source font and a plurality of characters within a target font compatible with said source font accurately model the situation (which involves a many-to-many mapping).

17. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hube, further in view of Patel, further in view of Ng further in view of Melen et al. (USPN 5,257,323—filing date 5/29/1991), hereinafter Melen

18. Regarding dependent claim 5, Hube, Patel, and Ng fail to disclose a method further comprising adding priority level information for said plurality of characters within said target font. However, Melen discloses in col. 1, lines 27-60 an invention that attaches confidence factors to a group of inputs to aid selection amongst them. Because confidence is analogous to priority level information, it would have been obvious to one of ordinary skill in the art at the time of the invention to follow Melen's teaching's to add priority level information for said plurality of characters within said target font to aid selection among them.

19. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hube, further in view of Ng

20. Regarding dependent claim 6, Hube fails to disclose a method wherein the font comparison table is a list taking as elements a corresponding relation ship between a

group of a source font set and character code within this source and a group of a target font set and character code within this target font set. However, as Ng discloses in col. 7, lines 14-31, the use of many-to-many relationships in mappings to accurately model situations where such a mapping is appropriate. Hence, it would have been obvious to one of ordinary skill in the art to follow Ng's teachings about many-to-many relationships in the context of Hube to have a method wherein the font comparison table is a list taking as elements a corresponding relation ship between a group of a source font set and character code within this source and a group of a target font set and character code within this target font set in order to accurately model the situation (which involves a many-to-many mapping).

21. **Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hube, further in view of Agazzi et al. (USPN 6,389,178 B1—filing date 7/28/1994), hereinafter Agazzi**
22. **Regarding dependent claim 7**, Hube fails to disclose a method wherein said step of comparing is carried out automatically using Optical Character Recognition (OCR) technology. However, Agazzi, in col. 3, lines 46-50, discloses a method of font substitution that is carried out by OCR in order to allow downsampling of a document. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Hube's teachings with the OCR teachings of Agazzi to facilitate downsampling of a document, thereby resulting in a method wherein said step of comparing is carried out automatically using Optical Character Recognition (OCR) technology.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 6,073,148 (filed 11/10/1998)—Rowe et al.

USPN 5,859,648 (filed 7/21/1997)—Moore et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan D. Schlaifer whose telephone number is 703-305-9777. The examiner can normally be reached on 8:30-5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 703-308-5186. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

JS



**SANJIV SHAH
PRIMARY EXAMINER**